GREEN BAY PLANNING GROUP
REGIONAL AND PROPERTY ANALYSIS EXECUTIVE SUMMARY

INTRODUCTION

The GBPG includes 12 named properties and other state-owned lands located along the west shore of Green Bay in Brown, Marinette, and Oconto counties (Map A). The properties include one WA, four SNAs, a gift lands parcel, and several scattered fishery and wildlife habitat parcels. The Green Bay West Shore WA (8,875.5 acres) contains 11 separate, non-contiguous units scattered along the west shore, including three embedded SNAs (Map B). A stand-alone SNA, Bloch Oxbow (597.5 acres), comprises the twelfth named property. There also is a 757-acre gift lands parcel – the Badger Gift Lands – in Marinette County, several Scattered Fishery Habitat and Statewide Wildlife Habitat parcels, and some transferred DOT mitigation site acres. In total, the GBPG encompasses 10,654 acres of state protected and managed land (Table 1).

Table 1. Green Bay Planning Group Property Acreages.

Property	Acreage*	Embedded SNA	Acreage*
Green Bay West Shore Wildlife Area			
Charles Pond Unit	152.5	Charles Pond	152.5
Little Tail Unit	243		
Long Tail Unit	317		
Oconto Marsh Unit	927		
Peats Lake Unit	491		
Pecor Point Unit	89		
Pensaukee Unit	515		
Peshtigo Harbor Unit	4,812	• Peshtigo Harbor Lacustrine Forest • Peshtigo River Delta Marshes	• 440 • 481
Rush Point Unit	384		
Sensiba Unit	637		
Tibbett-Suamico Unit	308		
Stand-alone State Natural Area			
Bloch Oxbow	597.5		
Gift Lands			
Badger Gift Lands	757		
Other State-owned Lands			
Brown County	219		
Marinette County	80		
Oconto County	125		

*Property acreages are extracted from the DNR Managed Lands GIS spatial database and may differ from the acreages represented in property deed legal descriptions. Acreage totals do not include ~21 acres of scattered access easements located outside of existing project boundaries. Property acreages also may change depending on water level fluctuations in Green Bay.

ECOLOGICAL SIGNIFICANCE AND CAPABILITY

The GBPG properties contain a variety of regionally significant features associated with the shoreline of Lake Michigan, including extensive coastal marshes and other wetland

communities, a river delta, sandspits, and embayments. The coastal wetlands on the GBPG properties represent approximately 50% of all wetlands remaining on the shoreline of Lake Michigan. The properties offer significant opportunity to manage for numerous rare species and natural communities, some of which are regionally rare, including Emergent Marsh, Northern Sedge Meadow, Southern Sedge Meadow, Shrub-Carr, Floodplain Forest, and Great Lakes Beach. Forty-four rare animal species and 18 rare plant species have been documented on the plan area properties.

Property Opportunities

- **Extensive coastal wetlands:** Though greatly diminished and degraded from their historical extent, the coastal wetlands along the west shore of Green Bay continue to be a productive and critical resource. The GBPG properties encompass a significant amount of this wetland acreage. These wetlands provide important breeding and migratory stopover sites for waterbirds, spawning areas for fish, and habitat for many other species of wetland-dependent wildlife. They also support populations of rare plants and animals, including invertebrates.
- **Migratory bird stopover habitat:** The Great Lakes shoreline plays a crucial role for millions of migrating birds. The GBPG properties host tens of thousands of migratory waterfowl, shorebirds, waterbirds, raptors, and landbirds in both spring and fall. The plan area's north-south orientation, location in a landscape dominated by agriculture and urban development, and variety of high-quality native habitats contribute to its significance as a migratory stopover site.
- **Fish spawning habitat:** The coastal wetlands along the west shore of Green Bay have long been recognized for their importance to spawning fish. Green Bay supports significant populations of smallmouth bass, walleye, yellow perch, Northern pike, and many nongame fish, which require flowing water and shallow wetlands with beds of emergent and submergent vegetation for spawning and fry-rearing habitat. The plan area's small perennial and interconnected streams and wetlands provide these critical nursery areas for many species of native fish.

Limitations and Challenges

Development pressure, altered hydrology, impaired water quality, and invasive species all represent major challenges to maintaining the ecological significance of the GBPG properties.

Many wetlands along the west shore of Green Bay already have been destroyed through conversion to agricultural use and industrial, residential, and recreational developments. Such conversions often are accompanied by hydrological modifications (e.g., ditching, diking, etc.) and infrastructure (roads, culverts, power lines, etc.) that degrade existing wetlands by disrupting hydrology, serving as a source of pollutants, facilitating the spread of invasive species, and creating physical barriers to movement of some species. Water quality has been compromised, particularly in lower Green Bay, by industrial and municipal contaminants and wastewater discharges, and also by agricultural runoff. Development pressure is expected to increase with projected population growth in all

three plan area counties, particularly Brown and Oconto. Encroaching development and the proximity of major highways, particularly in the southern portion of the plan area, may limit or preclude the use of certain management tools (e.g., prescribed fire).

Longer-term water level changes in Green Bay have dramatically affected the extent and quality of wetland vegetation in coastal marshes. Extreme water level fluctuations over the past three decades greatly contributed extensive infestations of invasive wetland plants, notably *Phragmites* and non-native cat-tails. Many other invasive plant and animal species and forest pests pose significant management challenges. These include: purple loosestrife; reed canary grass; glossy buckthorn; Eurasian water-milfoil; rusty crayfish; common carp; emerald ash borer; and gypsy moth.

RECREATIONAL SIGNIFICANCE AND CAPABILITY

Recreationally, the region of northeast Wisconsin where the GBPG properties are located is notable for its association with the Lake Michigan shoreline, rivers such as the Menominee, Oconto, Pike, Popple, and Peshtigo, and other water resources that draw many residents and visitors for water-based activities such as fishing and boating. It is also notable for the urban center of Green Bay, which impacts the surrounding area with its suburban growth and cultural resources.

Brown County, the southernmost plan area county, reflects the urban influence of Green Bay, with an emphasis on serving urban/suburban recreational pursuits in more developed settings and very little public recreation land providing more rural or nature-based activities such as hunting. In contrast, Oconto and Marinette counties contain large tracts of public lands and offer much greater opportunity for activities such as hunting, trapping, cross-country skiing, horseback riding, ATV riding, and snowmobiling.

Property Opportunities

The GBPG properties' location in close proximity to the cities of Marinette, Peshtigo, Oconto, and, most notably, Green Bay is significant from a recreational perspective. The plan area properties provide the closest public land to these population centers, even in Oconto and Marinette counties, whose extensive tracts of county and federal lands are concentrated in the central and northern portions of the counties, at some distance from these populated areas. The GBPG properties, therefore, are and will continue to be important providers of public outdoor recreational opportunities close to where people live.

The main recreational uses of the GBPG properties are the traditional outdoor pursuits of hunting, fishing, and trapping. The properties receive fairly heavy hunting use, especially for deer hunting but also for waterfowl and upland game. They offer access to the Green Bay shoreline for waterfowl hunters, ice anglers, and boaters. Trappers pursue muskrat, mink, and canids in the properties' coastal marshes. The properties also are used to a lesser extent for wildlife viewing, hiking, paddling, and cross-country skiing and snow-shoeing.

Some potential exists on the GBPG properties to enhance existing recreational opportunities or develop additional ones. Examples may include interpretive features, accessible viewing platforms, hunting blinds, and trails, shore fishing opportunities, improvements to an existing shooting range, walking trails on dike tops, and water trails.

Limitations and Challenges

Most of the plan area soils are wet, poorly drained, permanently or seasonally inundated, or subject to blowing and consolidation when exposed. In addition, the water table is close to the surface in many areas, particularly during periods of heavy precipitation. Soil ratings for trail suitability indicate that the great majority of acreage on the GBPG properties has very limited suitability for trail development. Recreational activities in developed settings, camping, and the majority of land-based trails (biking; horseback riding; ATV; snowmobile) generally are not permitted on WAs and SNAs as they are incompatible with the primary purposes of these properties. The plan area properties lack the capacity to provide for more intensely developed or higher-impact uses.

SUMMARY

The GBPG properties contain a highly ecologically significant assemblage of natural communities, including diverse emergent wetlands, shrub swamps, and lowland forests. They contain some 50% of all coastal wetlands remaining on the shoreline of Lake Michigan, provide valuable fish spawning and migratory bird stopover habitat, and host populations of rare animals and plants.

Recreationally, the properties are important providers of public recreation land in close proximity to regional population centers. Deer, waterfowl, and upland game hunting, wetland furbearer trapping, and fishing are popular pursuits. The properties also are used for wildlife viewing, especially for waterfowl, cranes, herons, rails, and other wetland birds. Other activities include dog training, target shooting, hiking, paddling, and cross-country skiing. These activities are compatible with the properties' physical characteristics and mostly rural character. There is some potential to accommodate additional lightly-developed opportunities such as viewing platforms, water trails, and walking trails on dike tops. However, wet soils severely limit development of most trails and other recreational infrastructure. Low-impact, outdoor, nature-based activities are and will continue to be these properties' best and most appropriate recreational use.